ABSTRACT

A scalable clustered system includes a global fabric, and two or more cluster nodes interconnected via the global fabric. Each cluster node includes a node naming agent (NNA), a local fabric and one or more end nodes interconnected via the local fabric. The NNA is configured as a fully symmetrical translation device interposed between the local fabric and the global fabric. The NNA provides support for scaled clustering by transforming a local/global cluster address into a corresponding global/local cluster address for each packet in an outbound/inbound path. As embodied and broadly described herein, the invention relates also to a method including steps for scaling the clustered system. Additionally, the invention relates to a computer readable medium in a scalable clustered system that embodies computer program code configured to cause that system to perform steps for configuring and scaling that system. The steps include operatively linking two or more cluster nodes via a global fabric in order to form a larger clustered system. The steps further include routing global packet traffic between the two or more cluster nodes in the larger clustered system via the global fabric; and routing local packet traffic between the one or more end nodes within each of the cluster nodes via the local fabric. The steps additionally include operatively interposing an NNA between the local fabric and the global fabric. As a result, intra-node cluster addressing is transparent to inter-node cluster address changes. As a further result, re-configuration of the scalable clustered system requires no address re-assignments yet allowing the end nodes in the cluster nodes to maintain connectivity between themselves.